Upper Slice Normals   Lower Slice Normals

SN_R

C1

SN_C

C2

Upper Slice Early Stage PD   Lower Slice Early Stage PD

SN_C showing loss of
signal laterally

P1

Upper Slice Late Stage PD   Lower Slice Late Stage PD
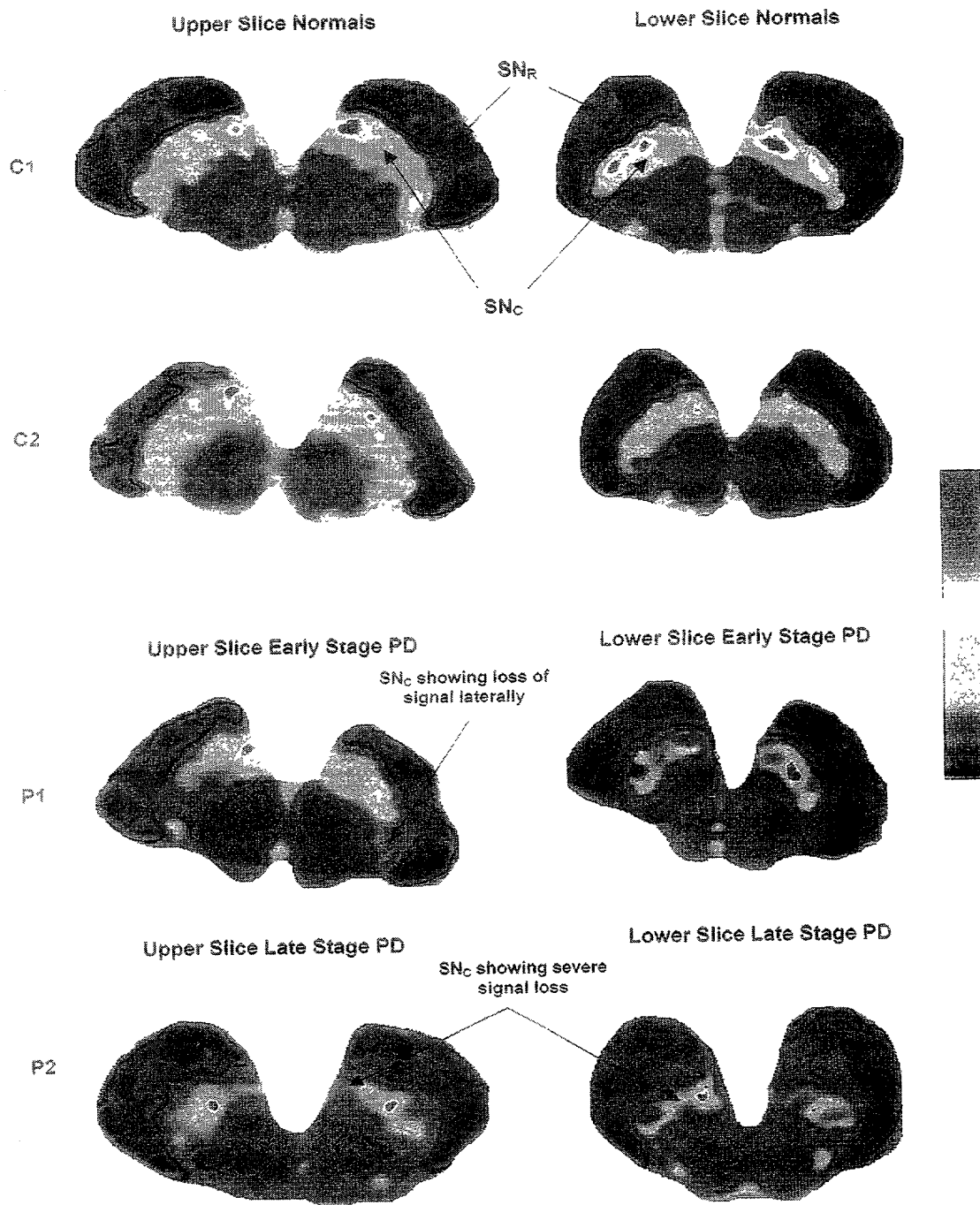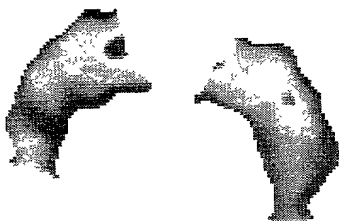
SN_C showing severe
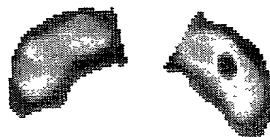signal loss

P2

FIG. 1

SN$_C$ Upper Slice
Control subject

SN$_C$ Lower Slice
Control subject

SN$_C$ Upper Slice
PD Patient 1

SN$_C$ Lower Slice
PD Patient 1

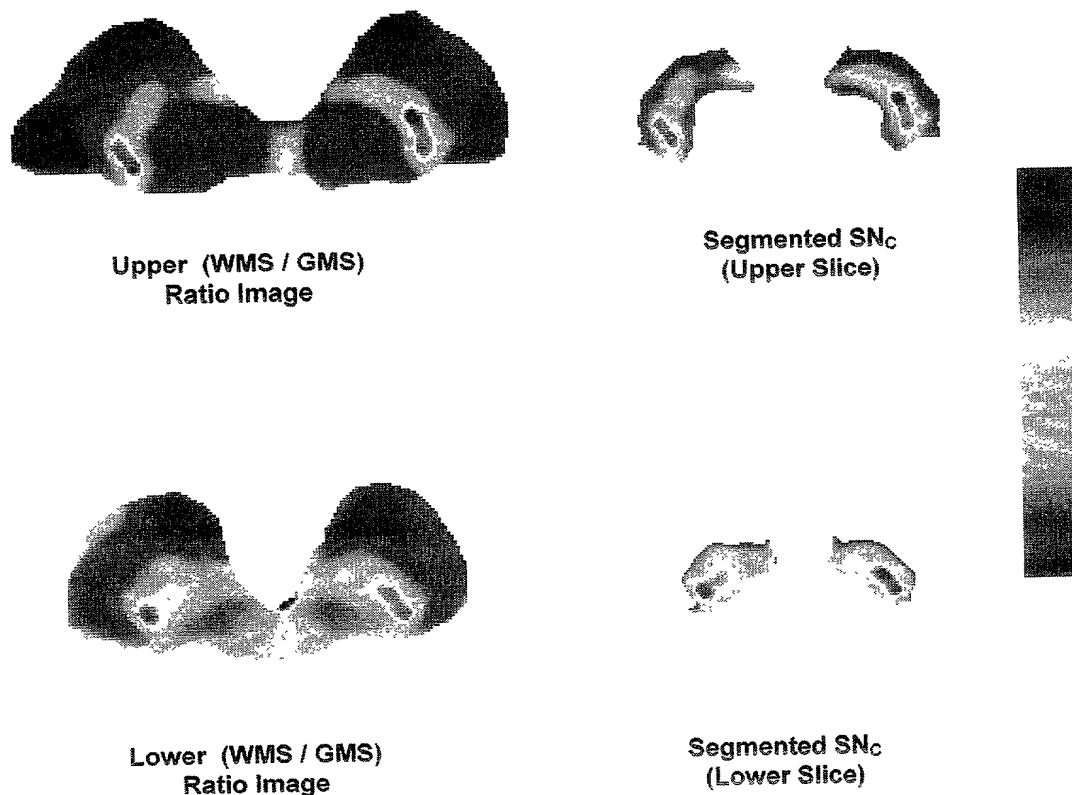SN$_C$ Upper Slice
PD Patient 2

SN$_C$ Lower Slice
PD Patient 2

Ratio images of the substantia nigra pars compacta (SN$_C$) after automated
segmentation of the WMS images of the cerebral peduncle.

FIG. 2

Progressive Supranuclear Palsy
(PSP)

Upper (WMS / GMS)
Ratio Image

Segmented SN$_C$
(Upper Slice)

Lower (WMS / GMS)
Ratio Image

Segmented SN$_C$
(Lower Slice)

Imaging of the substantia nigra pars compacta (SN$_C$) in Progressive
Supranuclear Palsy (PSP). The left column shows the (WMS / GMS) ratio
images of upper and lower slices and the right hand side displays the SN$_C$
segmented from the WMS images of the cerebral peduncle. Images are
displayed using the pseudo color lookup table on the right. Note that the
gradient of signal is in the opposite direction to that seen in Parkinson's
disease (i.e. there is relative loss of signal medially). This suggests the
possibility of distinguishing the two forms of parkinsonism radiographically.

FIG. 3